

REMARKS

In the Final Action dated July 28, 2009, Claims 1-41 were pending. Claims 2, 4, 6, 10-17, 21 and 24-39 were withdrawn from consideration as directed to non-elected subject matter. Claims 1, 3, 5, 7-9, 18-20, 22-23 and 40-41 were under consideration and were rejected.

This Response addresses each of the Examiner's rejections. Applicants therefore respectfully submit that the present application is in condition for allowance, or at least a better condition for appeal. Favorable consideration of all pending claims is therefore respectfully requested.

Claim Amendments

Claims 2, 4, 6, 10-17, 21 and 24-39, which were withdrawn from consideration as directed to non-elected subject matter, have been canceled without prejudice. Applicants reserve the right to pursue the subject matter of these claims in one or more divisional applications.

Claim 1 has been amended to define the aberrant cell as an aberrant "mammary epithelial" cell. Support for this amendment is found on pages 66-68 (Example 4) of the specification and previous claims 8-9. Claim 1 has been further amended by deleting the term "immunointeractive molecule" and inserting the term "antibody". Support for this amendment is found on pages 66-68 (Example 4) of the specification and claim 18, for example. In addition, claim 1 has been amended to delete the expression in the preamble, "or a predisposition to the development of an aberrant cell".

Claim 3 has been amended by replacing the term "immunointeractive molecule" with the term "antibody" which has antecedent basis. Claim 3 has been further amended to

define the aberrant cell growth as "breast cancer", as supported by the specification (e.g., page 24, lines 4-7), and to delete the expression, "or a predisposition to the development of an aberrant cell".

Claims 5 and 7-9 have been canceled, without prejudice.

Claim 18 has been amended by deleting parts (i) & (ii), deleting "or *LMO4*" in part (iv), and renumbering parts (iii)-(vi) as (i)-(iv).

Claim 22 has been amended to define the cancer growth as "breast" cancer growth and to define the antibody as "specific for *LMO4*". Breast cancer detection is disclosed in the specification, e.g., page 24, lines 4-7, and the antibody implicitly is specific for *LMO4*.

Claim 23 has been amended to delete part (i), delete "or *LMO4*" part (iii), and to renumber the parts as appropriate.

Claim 40 has been deleted.

Claim 41 has been amended to define the aberrant cell as an aberrant "mammary epithelial" cell, and to delete "or a predisposition to the development of an aberrant cell", similar to claim 1.

Because the foregoing amendments are fully supported by the specification, do not introduce any new limitation or new issue, and fully address the rejections in the Final Action, Applicants respectfully request entry of the amendments in the record of the present application.

35 U.S.C. §102(b)

Claims 19-20 were rejected under 35 U.S.C. §102(b) as anticipated by Kenny et al. (*PNAS*, 95: 11256-11262, 1998).

The rejection is moot in view of the cancellation of these claims.

35 U.S.C. §112, Second Paragraph

Claim 3 was rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite.

The rejection is obviated in light of the amendments to claim 3.

35 U.S.C. §112, First Paragraph

Claims 1, 3, 5, 7-9, 18, 22-23, and 40-41 were rejected under 35 U.S.C. §112, first paragraph for allegedly lacking enablement. The Examiner admits that the specification is enabling for a method of detecting an aberrant epithelial cell comprising ductal epithelial cell in the breast and pancreas based on elevated levels of LMO4 detected by complex formed between LMO4 and antibody or between LMO4 and BRCA1. However, the Examiner contends that the specification does not provide enablement for detection of other aberrant or cancer cells, or detection of elevated levels of a complex formed between the LMO4 protein and other molecules.

Applicants respectfully submit that the claims have been amended to recite an "aberrant *mammary epithelial* cell" (claims 1 and 41) and "breast cancer" (claims 3 and 22), and to define the complex formed as being between LMO-4 and an antibody (i.e., an anti-LMO4 antibody). It is respectfully submitted that the subject matter as presently claimed is fully supported by the specification, consistent with 35 U.S.C. §112, first paragraph. Therefore, the enablement rejection is obviated and withdrawal thereof is respectfully requested.

Conclusion

In view of the foregoing amendments and remarks, it is firmly believed that the subject application is in condition for allowance, which action is earnestly solicited. Should the Examiner believe that a telephone discussion will be helpful in resolving any outstanding issue, the Examiner is requested to contact the undersigned at the number indicated below.

Respectfully submitted,



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